IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A cordless remote handset extension apparatus for cellular mobile telephones (CMT's) having a handset and a transceiver, said apparatus comprising:

a. adapter means interconnectable between said handset and said transceiver of said CMT, said adapter means including,

(i) down-link transmitter means having an output down-link carrier signal being non-interfering with operating frequencies of said CMT transceiver,

(ii) means for modulating said down-link carrier signal with CMT information signals received by said CMT transceiver,

(iii) up-link receiver means tunable to an up-link carrier signal modulated with up-link information signals, said up-link carrier signal being non-interfering with operating frequencies of said CMT transceiver,

(iv) means for modulating an RF carrier signal produced by said CMT transmitter with said up-link information signals,

(v) control circuitry means for converting up-link information signals received by said up-link receiver means to CMT interface data signals of the same format and protocol as corresponding signals produced by said CMT handset when said CMT handset is used to receive and initiate CMT calls, for converting CMT handset control signals emitted by said CMT transceiver to a modulation signal for said down-link carrier signal, for entering an extension control mode and producing a down-link dial tone signal when hailed by a properly coded up-link signal, for producing a down-link ringer signal upon receipt of a CMT ringer signal indicating receipt of an incoming CMT call, and entering an extension control mode upon receipt of a properly coded up-link off-hook signal, and

b. a remote cordless handset/transceiver unit physically isolated from said adapter means and including,

(i) an up-link transmitter having an output up-link carrier signal being non-interfering with operating frequencies of said CMT transceiver,

(ii) modulation means for modulating said up-link carrier signal,

(iii) down-link receiver means tunable to said down-link carrier signal, and

(iv) demodulation means for demodulating information signals on said down-link carrier.

2. (Original) The apparatus of claim 1 further including a microphone operably connected to said modulation means.

3. (Original) The apparatus of claim 2 further including a loudspeaker operably connected to said demodulation means.

4. (Original) An adapter affording a capability for utilizing a cordless remote handset/transceiver extension apparatus with cellular mobile telephones (CMT's) having a handset and a transceiver, said adapter being interconnectable between said handset and said transceiver of said CMT and comprising;

a. down-link transmitter means having an output down-link carrier signal being non-interfering with operating frequencies of said CMT transceiver,

b. means for modulating said down-link carrier signal with CMT information signals received by said CMT transceiver,

c. up-link receiver means tunable to an up-link carrier signal modulated with up-link information signals, said up-link carrier signal being non-interfering with operating frequencies of said CMT transceiver,

d. means for modulating an RF carrier signal produced by said CMT transmitter with said up-link information signals, and

e. control circuitry means for converting up-link information signals received by said up-link receiver means to CMT interface data signals of the same format and protocol as corresponding signals produced by said CMT handset when said CMT handset is used to receive and initiate CMT calls, for converting CMT handset control signals emitted by said CMT transceiver to a modulation signal for said down-link carrier signal, for entering an extension control mode and producing a down-link dial tone signal when hailed by a properly coded up-link signal, for producing a down-link ringer signal upon receipt of a CMT ringer signal indicating receipt of an incoming CMT call, and entering an

extension control mode upon receipt of a properly coded up-link off-hook signal.

5. (Original) An extension accessory apparatus for cellular mobile telephones (CMT's) having a handset and a transceiver, said apparatus comprising:

a. an adapter means interconnectable to said handset and said transceiver, said adapter means including,

(i) first, resident low-power down-link transceiver means having (A) down-link transmitter of lower power output than that of the transmitter of said CMT transceiver, and an operating frequency different from those of both said CMT transmitter and the receiver of said CMT transceiver, (B) means for modulating a carrier signal produced by said down-link transmitter means with CMT information signals received by said CMT transceiver, (C) up-link receiver means for receiving an up-link carrier signal modulated with up-link information signals, said up-link carrier having a frequency different from those of said CMT transmitter and said down-link transmitter, and (D) means for modulating an RF carrier signal produced by said CMT transmitter with said up-link information signals,

(ii) control circuitry means for converting received up-link data signals to CMT interface data signals of the same format as required by said CMT transceiver, and for converting CMT control signals emitted by said CMT transceiver to a modulation signal for said down-link carrier signal,

b. a cordless handset/transceiver unit not connected by wires to said adapter means and including,

(i) a second, remote low-power up-link transceiver including (A) an up-link transmitter of lower power output than that of said CMT transmitter and an operating frequency different from those of both said CMT transmitter and said CMT receiver, (B) means for modulating a carrier signal produced by said up-link transmitter with up-link information signals, (C) signal input port means operably connected to said modulation means, (D) a down-0link receiver which receives a down-link carrier signal from said down-link transmitter

means, (E) means for demodulating information signals on said down-link carrier, and (F) signal output port means connected to said demodulator means for reproducing said demodulated down-link signals, whereby information signals received by said CMT transceiver may be relayed through said signal output port means, and information signals inputted to said signal input port means of said cordless handset/transceiver unit may be transmitted by said CMT transceiver, and

c. a multiplex selector switch, said multiplex selector switch having an output port electrically coupled to a signal port of said CMT transceiver, a first input port electrically coupled to a signal port of said resident down-link transceiver, a second input port coupleable to a second signal port, and means for actuating said multiplex selector switch to alternatively couple said first or second input ports to said output port connected to said CMT transceiver.

[[6.]]

6. (Original) The apparatus of claim 5 wherein said means for actuating said multiplex selector switch is further defined as being an electronic signal produced by said cordless handset/transceiver unit.

7. (Previously presented) A cordless remote mobile unit extension apparatus connectable to a cellular mobile device (CMD) having a mobile unit and a transceiver, the apparatus comprising:

a. an adapter interconnectable between the mobile unit and the transceiver of the CMD, the adapter including,

(i) a down-link transmitter having an output down-link carrier signal being non-interfering with operating frequencies of the CMD transceiver,

(ii) a down-link modulator configured to modulate the down-link carrier signal with CMD information signals received by the CMD transceiver,

(iii) an up-link receiver tunable to an up-link carrier signal modulated with up-link information signals, the up-link carrier signal being non-interfering with operating frequencies of the CMD transceiver,

(iv) a RF modulator configured to modulate an RF carrier signal produced by the CMD transmitter with the up-link information signals,

(v) control circuitry configured to convert up-link information signals received by the up-link receiver to CMD interface data signals of the same format and protocol as corresponding signals produced by the CMD mobile unit when the CMD mobile unit is used to receive and initiate CMD calls, to convert CMD mobile unit control signals emitted by the CMD transceiver to a modulation signal for the down-link carrier -al, to enter an extension control mode and produce a down-link dial tone signal when hailed by a properly coded up-link signal, to produce a down-link ringer signal upon receipt of a CMD ringer signal indicating receipt of an incoming CMD call, and to enter an extension control mode upon receipt of a properly coded up-link off-hook signal, and

b. a remote cordless mobile unit transceiver unit physically isolated from the adapter and including,

(i) an up-link transmitter having an output up-link carrier signal being non-interfering with operating frequencies of the CMD transceiver,

(ii) an up-link modulator configured to modulate the up-link carrier signal,

(iii) a down-link receiver tunable to the down-link carrier signal, and

(iv) a down-link demodulator configured to demodulate information signals on the down-link carrier signal.

8. (Previously presented) The apparatus of claim 7 further including a microphone operably coupled to the up-link modulator.

9 (Previously presented) The apparatus of claim 8 further including a loudspeaker operably coupled to the down-link demodulator.

10. (Previously presented) The apparatus of claim 9 wherein the adapter is a cellular transceiver module modem.

11. (Previously presented) The apparatus of claim 10 wherein the adapter is configured to be coupled to a computer or a Den based pad.

12. (Previously presented) The apparatus of claim 10 wherein the adapter is configured to be coupled to a wireless telephone.

13. (Previously presented) The apparatus of claim 9 wherein the remote cordless mobile unit/transceiver unit is an extension mobile headset.

14. (Previously presented) The apparatus of claim 9 wherein the remote cordless mobile unit/transceiver unit is an extension mobile handset.

15. (Previously presented) The apparatus of claim 7 wherein the remote cordless mobile unit/transceiver unit is a beeper/pager.

16. (Previously presented) The apparatus of claim 9 wherein the remote cordless mobile unit/transceiver unit is a computer.

17. (Previously presented) The apparatus of claim 9 wherein the remote cordless mobile unit/transceiver unit is a voice mail/answering machine unit.

18. (Previously presented) The apparatus of claim 9 wherein the remote cordless mobile unit/transceiver unit is a video unit.

19. (Previously presented) An adapter configured to communicate with a cordless remote mobile unit/transceiver extension apparatus coupled to a cellular mobile device (CMD's) having a mobile unit and a transceiver, the adapter being interconnectable between the mobile unit and the transceiver of the CMD and comprising:

a. a down-link transmitter having an output down-link carrier signal being non-interfering with operating frequencies of the CMD transceiver,

b. a modulator configured to modulate the down-link carrier signal with CMD information signals received by the CMD transceiver,

c. an up-link receiver tunable to an up-link carrier signal modulated with uplink information signals, the up-link carrier signal being non-interfering with operating frequencies of the CMD transceiver,

d. an RF modulator configured to modulate an RF carrier signal produced by the CMD transceiver with the up-link information signals, and

e. control circuitry configured to convert up-link information signals received by the up-link receiver to CMD interface data signals of the same format and protocol as corresponding signals produced by the CMD mobile unit when the CMD mobile unit is used to receive and initiate CMD calls, configured to convert CMD mobile unit control signals emitted by the CMD transceiver to a modulation signal for the down-link carrier signal, configured to enter an

extension control mode and producing a down-link dial tone signal when hailed by a properly coded up-link signal, configured to produce a down-link ringer signal upon receipt of a CMD ringer signal indicating receipt of an incoming CMD call, and configured to enter an extension control mode upon receipt of a properly coded up-link off-hook signal.

20. (Previously presented) The apparatus of claim 19 wherein the adapter is a cellular transceiver module modem.

21. (Previously presented) The apparatus of claim 19 wherein the adapter is configured to be coupled to a computer or a pen based pad.

22. (Previously presented) The apparatus of claim 19 wherein the adapter is configured to be coupled to a wireless telephone.

23. (Currently Amended) An extension accessory apparatus connectable to a cellular mobile device ~~[CMD's]~~ ("CMD") having a mobile unit and a transceiver, the apparatus comprising:

a. an adapter interconnectable to the mobile unit and the transceiver, the adapter including,

(i) a first resident low-power down-link transceiver having

(A) a down-link transmitter of lower power output than that of the transmitter of the CMD transceiver, and an operating frequency different from those of both the CMD transmitter and a receiver of the CMD transceiver,

(B) a first carrier signal modulator configured to modulate a carrier signal produced by the down-link transmitter with CMD information signals received by the CMD transceiver,

(C) an up-link receiver configured to receive an up-link carrier and modulated with up-link information signals, the uplink carrier having a frequency different from those of the CMD transmitter and the down-link transmitter, and

(D) an RF modulator configured to modulate an RF carrier signal produced by the CMD transmitter with the up-link information signals,

(ii) control circuitry configured to convert received up-link data signals to CMD interface data signals of the same format as required by the

CMD transceiver, and configured to convert CMD control signals emitted by the CMD transceiver to a modulation signal for the down-link carrier signal,

b. a cordless mobile unit/transceiver unit not connected by wires to the adapter and including,

(i) a second remote low-power up-link transceiver including

(A) an up-link transmitter of lower power output than that of the CMD transmitter and an operating frequency different from those of both the CMD transmitter and the CMD receiver,

(B) a second carrier signal modulator configured to modulate a carrier signal produced by the up-link transmitter with uplink information signals,

(C) signal input port operably coupled to the second carrier signal modulator,

(D) a down-link receiver configured to receive a down-link carrier signal from the down-link transmitter,

(E) a down-link demodulator configured to demodulate information signals on the down-link carrier, and

(F) a signal output port coupled to the down-link demodulator configured to reproduce the demodulated down-link signals, whereby information signals received by the CMD transceiver may be relayed through the signal output port, and information signals input to the signal input port of the cordless mobile unit/transceiver unit may be transmitted by the CMD transceiver, and

c. a multiplex selector switch, the multiplex selector switch having an output port electrically coupled to a signal port of the CMD transceiver, a first input port electrically coupled to a signal port of the resident down-link transceiver, a second input port coupleable to a second signal port, and an actuator configured to actuate the multiplex selector switch to alternatively couple the first or second input ports to the output port coupled to the CMD transceiver.

24. (Previously presented) The apparatus of claim 23 wherein the actuator is an electronic signal produced by the cordless mobile unit/transceiver unit.

25. (Previously presented) The apparatus of claim 24 wherein the adapter is a cellular transceiver module modem.

26. (Previously presented) The apparatus of claim 25 wherein the adapter is configured to be coupled to a computer or a pen based pad.

27. (Previously presented) The apparatus of claim 25 wherein the adapter is configured to be coupled to a wireless telephone.

28. (Previously presented) The apparatus of claim 25 wherein the remote cordless mobile unit/transceiver unit is an extension mobile headset.

29. (Previously presented) The apparatus of claim 25 wherein the remote cordless mobile unit/transceiver unit is an extension mobile handset.

30. (Previously presented) The apparatus of claim 25 wherein the remote cordless mobile unit/transceiver unit is a beeper/pager.

31. (Previously presented) The apparatus of claim 25 wherein the remote cordless mobile unit/transceiver unit is a computer.

32. (Previously presented) The apparatus of claim 25 wherein the remote cordless mobile unit/transceiver unit is a voice mail/answering machine unit.

33. (Previously presented) The apparatus of claim 25 wherein the remote cordless mobile unit/transceiver unit is a video unit.

34-39. (Canceled)

40. (Previously presented) A cordless remote extension apparatus connectable to a cellular mobile device (CMD), the apparatus comprising:

a. an adapter interconnectable to the CMD, the adapter including,

(i) a down-link transmitter having an output down-link carrier signal being non-interfering with operating frequencies of the CMD,

(ii) a down-link modulator configured to modulate the down-link carrier signal with CMD information signals received by the CMD,

(iii) an up-link receiver tunable to an up-link carrier signal modulated with UP-link information signals, the up-link carrier signal being non-interfering with operating frequencies of the CMD,

(iv) control circuitry configured to convert up-link information signals received by the up-link receiver to CMD interface data signals of the same format and protocol as corresponding signals produced by the CMD, to convert CMD mobile unit control signals emitted by the

CMD to a modulation signal for the down-link carrier signal, to enter an extension control mode and produce a downlink dial tone signal when hailed by a properly coded up-link signal, to produce a down-link ringer signal upon receipt of a CMD ringer signal indicating receipt of an incoming CMD call, and to enter an extension control mode upon receipt of a properly coded up-link off-hook signal, and

b. a remote cordless transceiver physically isolated from the adapter and including,

(i) an uplink transmitter having an output up-link carrier signal being non-interfering with operating frequencies of the CMD,

(ii) an up-link modulator configured to modulate the UP-link carrier signal,

(iii) a down-link receiver tunable to the down-link carrier signal, and

(iv) a down-link demodulator configured to demodulate information signals on the down-link carrier signal.

41. (Previously presented) The apparatus of claim 40 further including a microphone operably coupled to the up-link modulator.

42. (Previously presented) The apparatus of claim 41 further including a loudspeaker operably coupled to the down-link demodulator.

43. (Previously presented) The apparatus of claim 42 wherein the adapter is a cellular transceiver module modem.

44. (Previously Presented) The apparatus of claim 43 wherein the adapter is configured to be coupled to a computer or a pen based pad.

45. (Previously Presented) The apparatus of claim 44 wherein the adapter is configured to be coupled to a wireless telephone.

46. (Previously presented) The apparatus of claim 43 wherein the remote cordless transceiver is an extension mobile headset.

47. (Previously presented) The apparatus of claim 43 wherein the remote cordless transceiver is an extension mobile handset.

48. (Previously presented) The apparatus of claim 41 wherein the remote cordless transceiver is a Beeper/pager.

49. (Previously presented) The apparatus of claim 43 wherein the remote cordless transceiver is a computer.

50. (Previously presented) The apparatus of claim 43 wherein the remote cordless transceiver is a voice mail/answering machine unit.

51. (Previously presented) The apparatus of claim 43 wherein the remote cordless transceiver is a video unit.

52. (Previously presented) An adapter configured to communicate with a cordless remote extension apparatus coupled to a cellular mobile device (CMD), the adapter being connectable to the CMD, comprising:

a down-link transmitter having an output down-link carrier signal being noninterfering with operating frequencies of the CMD,

a modulator configured to modulate the down-link carrier signal with CMD information signals received by the CMD,

an up-link receiver tunable to an up-link carrier signal modulated with up-link information signals, the up-link carrier signal being non-interfering with operating frequencies of the CMD,

control circuitry configured to convert up-link information signals received by the up-link receiver to CMD interface data signals of the same format and protocol as corresponding signals produced by the CMD, configured to convert CMD control signals to a modulation signal for the down-link carrier signal, configured to enter an extension control mode and producing a down-link dial tone signal, configured to produce a down-link ringer signal, and configured to enter an extension control mode.

53. (Previously presented) The adapter of claim 52 wherein the adapter is a cellular transceiver module modem.

54. (Previously presented) The adapter of claim 53 wherein the adapter is configured to be coupled to a computer or a pen based pad.

55. (Previously presented) The adapter of claim 53 wherein the adapter is configured to be coupled to a wireless telephone.

56-61. (Canceled)